CLAIMS

What is claimed is:

1. A package, comprising:

a substrate with an inner surface to which a die is to be attached, forming electrical connections through the substrate, between the die and the exterior of the package;

a lid with an inner surface facing the inner surface of the substrate; and

sealant disposed between the substrate and the lid in a pattern with at least one break in the pattern.

2. The apparatus of claim 1, wherein the package is a ball grid array package.

3. The apparatus of claim 1, wherein the package is a pin grid array package.

4. The apparatus of claim 1, wherein the die is attached to the lid, and the lid serves to conduct the heat away from the die.

5. The apparatus of claim 1, wherein a vent-hole is formed through the lid.

6. The apparatus of claim 1, wherein the pattern in which the sealant is disposed between the lid and the substrate is a substantially rectangular pattern with the at least one break.

7. The apparatus of claim 6, wherein the rectangular pattern has four breaks, one in each side of the substantially rectangular pattern.

8. The apparatus of claim 7, wherein the four breaks comprise a minimum of 10% of the total length of what would otherwise be an unbroken substantially rectangular pattern.

9. The apparatus of claim 6, wherein the rectangular pattern has four breaks, one in each corner of the substantially rectangular pattern.

10. The apparatus of claim 9, wherein the four breaks comprise a minimum of 10% of the total length of what would otherwise be an unbroken substantially rectangular pattern.

11. The apparatus of claim 1, wherein the substrate is susceptible to absorbing moisture, and the pressure existing between the substrate and the lid is as a result of moisture being released within the package by the substrate and being converted to steam.

12. The apparatus of claim 11, wherein the substrate is comprised of organic material.

13. The package of claim 1, wherein the die is attached to the substrate using a controlled collapsed chip connection.

14. The package of claim 1, wherein the package is tested by applying heat to the exterior of the package by way of exposing the package to steam at high pressure.

15. A method of releasing pressure existing within a package, comprising:

attaching a die to an inner surface of a substrate to form electrical contacts between the die and the substrate;

disposing sealant about the inner surface of the substrate in a pattern having at least one break in what would otherwise be a pattern forming an unbroken line surrounding the die; and

coupling a lid to the substrate, with an inner surface of the lid facing the inner surface of the substrate, using the sealant disposed about the inner surface of the substrate to bond the lid to the substrate.

16. The method of claim 15, further comprising disposing thermal attach between the die and the inner surface of the lid to use the lid to conduct heat away from the die.

17. The method of claim 15, further comprising modifying apparatus used to dispose the sealant in a pattern forming an unbroken line to dispose the sealant in the pattern having the at least one break in what would otherwise be a pattern forming an unbroken line.

18. The method of claim 15, further comprising installing the package for testing in a manner that a vent-hole formed through the lid is blocked,

thereby preventing the pressure existing within the package from being released through the vent-hole.

19. The apparatus of claim 18, wherein the testing comprises applying heat to the exterior of the package by way of exposing the package to steam at high pressure.

20. The method of claim 15, wherein the substrate is susceptible to absorbing moisture, and the pressure existing between the substrate and the lid is as a result of moisture being released within the package by the substrate and being converted to steam.

21. The method of claim 15, further comprising installing the package for normal use in a manner that a vent-hole formed through the lid is blocked, thereby preventing the pressure existing within the package from being released through the vent-hole.

22. The method of claim 15, wherein the die is attached to the substrate using a controlled collapsed chip connection.

23. An electronic device, comprising:

a substrate with an inner surface;

a lid with an inner surface facing the inner surface of the substrate;

a die on which electronic circuitry is disposed, enclosed between the substrate and the lid, and attached to the inner surface of the substrate which provides electrical connections between the die and the exterior of the package; and

sealant disposed between the substrate and the lid in a pattern with at least one break in the pattern.

24. The apparatus of claim 23, wherein the die is attached to the lid, and the lid serves to conduct the heat away from the die.

25. The apparatus of claim 23, wherein the pattern in which the sealant is disposed between the lid and the substrate is a substantially rectangular pattern with the at least one break.

26. The apparatus of claim 25, wherein the rectangular pattern has four breaks, one in each side of the substantially rectangular pattern.

27. The method of claim 23, wherein the die is attached to the substrate using a controlled collapsed chip connection.